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GENERAL HOME GARDEN SERIES No. 32

CONTAINER GROWN GARDENS

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Apartment and condominium dwellers with even the smallest balcony can, with containers, grow a good selection of vegetables. Every inch of space may be utilized. Vegetables thrive in containers and attractive vegetable gardens may be designed with interesting containers filled with an assorted variety of vegetables. Such gardens are fun to plan and develop, the only limit to their size is the space available and the amount of sun.

Containers Suitable For Use

The container should be strong enough to hold soil, withstand frequent wetting and drying, the pressure of growing roots, and be large enough for the desired plants to be grown. The container should be large enough to allow full root development of the plant to be grown. For example, tomatoes, eggplants and squash should have a 3 to 5 gallon container, while radish, green onions, bush beans or similar medium sized plants need 1½ to 2½ gallon sized containers. Small plants such as parsley and chives grow well in ½ to 1 gallon size containers. Generally it is better to use a larger container than one too small.

The container should also have a sufficient number of holes large enough to allow good drainage of the soil in the container. Some containers suitable for use are: manufactured clay pots, ceramic pots, metal cans, old pots and pans, old automobile tires, trays, wheelbarrows, wooden boxes, etc. Wooden boxes may be constructed to fit the size and shape of the space available. Containers located on balconies, decks, etc., should be placed on bricks or blocks to allow aeration to prevent the base of the plants from becoming too hot. This will also aid drainage. It will help prevent the accumulation of dirt and litter and allow easier cleaning of that which does accumulate.

Soil For Containers

Plants grown in containers have the same needs as those grown in the ground. This means the soil should have good drainage, adequate aeration after drainage and an adequate reservoir of available water after drainage. It should also have adequate supply of plant nutrients and proper soil reaction (pH)[1] for the plants to be grown.

You may use commercial container mixes available in garden shops and nurseries under a variety of brand names. Many of these mixes, especially those that are imported into Hawaii, have no true soil present in them. These mixes are designed to provide the above desirable characteristics of drainage. However, most of these mixes do not contain the necessary plant nutrients and will require fertilization for plant growth.

You may make your own container mix, by purchasing the different materials and mixing them together. Such mixes contain soil or be made without soil. A typical home mix may be made by mixing one part garden or top soil with one part sand or fine cinders and one part nitrogen stabilized organic material such as peat moss, tree bark, etc. Do not use the coral beach sand found here in Hawaii as it will dissolve in the mixture. It is a source of lime rather than improving the physical properties of the mix. The black sand available in the garden shops is an excellent material. Vermiculite or perlite may be used in place of the sand. Nitrogen stabilized organic matter is required to prevent decomposition and loss of its value in the mix. Keep your mix simple. You do not need a different mix for each of your vegetables.

The mixture should be treated for control of organisms. This eliminates soil borne diseases and insects. The commercial mixes generally have been treated for control of these organisms. If you use soil in your mix, it should be treated[2] before use.

[1]See No. 8, "Soil Reaction (pH)" and No. 18, "The pH Preference of Plants" in this General Home Garden Series.

[2]See No. 28, "Treatment For Control of Soil Organisms" in this General Home Garden Series.

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Placing Soil In Containers

Containers should have good drainage. Holes one-fourth inch in size and three to five inches apart at the bottom of the conainer should provide adequate drainage. The holes should be protected to prevent the soil from washing out when watered. Use any porous material, such as broken clay pots, pieces of lava, etc., to protect the holes. Fill the container to within two inches of the top so it will hold enough water for the soil in the container. If it is less than this, it may require waiting for the water to drain into the soil and then adding more water to drain through the soil.

Fertilization

Fertilizer should be added to the soil at the rate of one ounce of 10–30–10 or similar analysis per gallon of soil before placing in the container. Add fertilizer three weeks after germination at the rate of 1 teaspoon (4.7 grams) per one gallon size of container and then every other week. Add 10–30–10 or similar analysis and mix with top inch of soil in the container.

Watering

The soil should be kept moist but not wet. During sunny days water is usually needed every day. During cloudy days watering every other day should be adequate. If the plants are in an area exposed to the wind, you may need water more often. Check the surface of the soil. If it is dry to the depth of ½ inch, water until drainage occurs from the bottom of the container. If the porous containers are used, watering will be required more frequently than for non-porous containers.

Plants grown in containers are subject to the same diseases and insects as those grown in the garden. If you have damage from these pests apply the necessary insecticide, fungicide or other treatment necessary.

For further information see your County Agent.

***Soil Management Specialist, Vegetable Specialist, and County Agent, respectivley.**

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